

Single Cell range

NEW



A proven capability for all stationary applications

Alcad's versatile Single Cell design is based upon robust Ni-Cd pocket plate technology. Resistant to electrical abuse, shock and vibration, it provides reliability in some of the most challenging operating conditions, even in fluctuating temperatures. Discharge duration and end of discharge voltage criteria can be met easily from the wide range of low, medium and high rate discharge types. Additionally, a generous electrolyte reserve enables a minimal maintenance requirement over a service life of 20+ years, achieving optimum Total Cost of Ownership (TCO).

Extended and improved to meet evolving needs

Alcad's Single Cell range has now been upgraded, featuring three significant advances:

- **Broader range** – additional capacities enable sizing a battery more precisely to requirements for the optimum, most cost-effective solution.
- **Lower maintenance** – water topping-up interval is up to two times longer, contributing to reduced battery maintenance and lower overall TCO.
- **Improved chargeability** – faster recharge time maximises performance for better system reliability and continuity.

Ni-Cd for proven reliability even when operating in difficult and demanding conditions

- Delivers performance, reliability and a long, totally predictable service life – with no risk of sudden death failure.
- Ensures a 20+ years service life at + 25°C (+ 77°F).
- Even at + 35°C (+ 95°F), service life is reduced by just 20% compared with 50% for a lead-acid battery.

	LCE / LBE... P	MC / MB... P	HC / HB... P
Range of cells	58	68	47
Capacity	10 – 1690 Ah	9 – 1440 Ah	9 – 920 Ah
Characteristics	<ul style="list-style-type: none"> • Thick plates • High energy • Low cost per Ampere at low rates 	<ul style="list-style-type: none"> • Medium power • Optimised between H and L design for mixed loads 	<ul style="list-style-type: none"> • Thin plates • High power • Low cost per Ampere at high rates
Performance	For low rate discharge over long period between 1 and 100 hours	For varied loads with low and high discharge rate or medium rate discharge between 30 minutes and 3 hours	For high rate discharge over short periods less than 30 minutes
Applications	Power back-up applications		Power back-up and starting applications

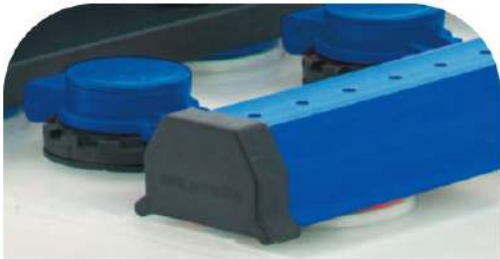
Define the ideal battery for every application

- Performance optimised for each application according to the plate thickness.
- Optimised design boosts electrical performance by up to 10% depending on discharge time.
- More capacity steps enabling the battery to be sized more closely to exact requirements.

Delivering quality

ALCAD

The best connection for optimum battery efficiency

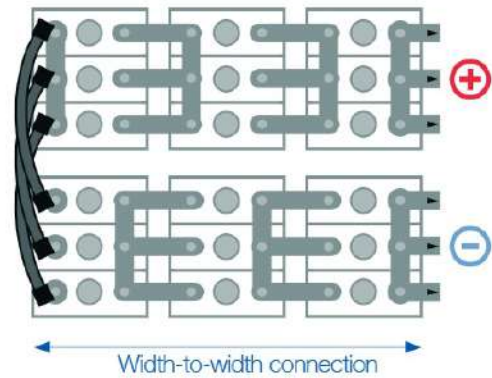
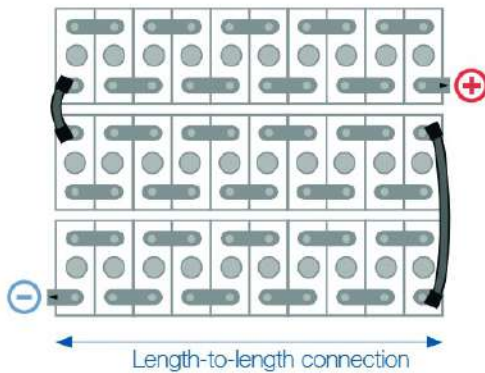


Standard layouts

Alcad has developed a series of standard layouts in which a battery may be ordered. Whether the battery is being installed on a rack, in a cabinet or is simply freestanding, the same configuration principles can be applied.

Two ways to configure the battery

	Normal connection	Crosswise connection
LCE/LBE	LCE10P to LCE375P	LBE400P to LBE1690P
MC/MB	MC9P to MC335P	MB350P to MB1440P
HC/HB	HC9P to HC210P	HB230P to HB920P



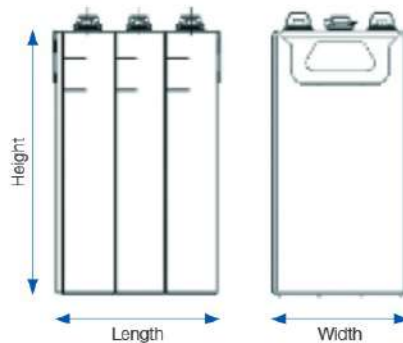
The cell is turned through 90° and then connected width-to-width – "crosswise" mounted. This minimises the installation's overall length. The cell's width is used to calculate the row length.





Dimensions

The dimensions of all available cell types are tabulated on the following pages.



Notes:

- All the tabulated dimensions are maximum values.
- All the cell heights given in the tables include the height of the IP2X terminal cover.

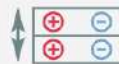
Position of terminals

Single cells, 1 pole bolt per pole



LCE10P to LCE280P
MC9P to MC240P
HC9P to HC155P

Single cells, 2 pole bolts per pole



LCE10P to LCE375P
MC250P to MC335P
HC170P to HC210P

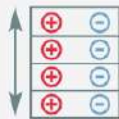
Single cells, with 2 - 6 pole bolts per pole



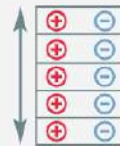
LBE400P to LBE550P
MB350P to MB480P
HB230P to HB305P



LBE600P to LBE830P
MB505P to MB720P
HB325P to HB460P



LBE890P to LBE1100P
MB740P to MB940P
HB510P to HB615P



LBE1150P to LBE1400P
MB1000P to MB1180P
HB640P to HB765P



LBE1450P to LBE1690P
MB965P
MB1220P to MB1440P
HB800P to HB920P

Label naming information

LCE/LBE, MC/MB and HC/HB single cell ranges are respectively designated with a "-1" extension on ALCAD container labels. The "-1" extension designation refers to ALCAD single cell design for manufacturing purposes. As an example, 'LBE 750P' cell is named as 'LBE 750P-1' on the ALCAD container label.

Single Cell Range

LCE / LBE Range

Capacities and dimensions - **International System of units**

CONNECTION	Cell type	Capacity	Overall	Width	Length	Approx.	Approx.	Electrolyte per cell		Internal resistance *	Cell connection bolt per pole
		C _E Ah	Height*	per cell	per cell	Weight per cell	electrolyte volume between level marks	Solid	Liquid		
		Ah	mm	mm	mm	Kg	cm ³	kg	L	mOhm	
NORMAL CONNECTION	LCE10P	10	270	121	42	1.60	146	0.26	0.80	10.5	M 6
	LCE15P	15	270	121	42	1.70	146	0.23	0.70	8.33	M 6
	LCE22P	22	270	121	42	1.90	143	0.23	0.70	4.77	M 6
	LCE30P	30	270	121	42	2.00	143	0.19	0.60	4.17	M 6
	LCE40P	40	270	121	66	3.10	235	0.36	1.10	3.13	M 6
	LCE47P	47	270	121	66	3.00	238	0.36	1.10	2.66	M 6
	LCE55P	55	270	121	66	3.30	235	0.32	1.00	2.27	M 6
	LCE62P	62	270	121	66	3.30	235	0.32	1.00	2.02	M 6
	LCE70P	70	357	192	68	6.10	540	0.87	2.70	2.29	M 8
	LCE75P	75	357	192	68	6.10	540	0.87	2.70	2.13	M 8
	LCE85P	85	357	192	68	6.80	530	0.78	2.40	1.88	M 10
	LCE90P	90	357	192	68	6.80	530	0.78	2.40	1.78	M 10
	LCE100P	100	357	192	68	6.80	530	0.78	2.40	1.60	M 10
	LCE110P	110	357	192	68	6.80	530	0.78	2.40	1.45	M 10
	LCE125P	125	357	192	68	7.40	530	0.68	2.10	1.28	M 10
	LCE145P	145	357	192	68	7.40	530	0.68	2.10	1.10	M 10
	LCE165P	165	357	192	93	9.80	750	1.04	3.20	0.97	M 10
	LCE185P	185	357	192	93	9.80	750	1.04	3.20	0.86	M 10
	LCE200P	200	357	192	93	10.4	740	0.94	2.90	0.80	M 10
	LCE220P	220	357	192	93	10.4	740	0.94	2.90	0.73	M 10
LCE235P	235	413	192	93	11.6	750	1.20	3.70	0.70	M 10	
LCE255P	255	413	192	93	12.3	740	1.10	3.40	0.65	M 10	
LCE280P	280	413	192	93	12.3	740	1.10	3.40	0.59	M 10	
LCE300P	300	413	192	122	15.9	1000	1.56	4.80	0.55	2 x M 10	
LCE330P	330	413	192	122	15.9	1000	1.56	4.80	0.50	2 x M 10	
LCE360P	360	413	192	122	16.6	990	1.43	4.40	0.46	2 x M 10	
LCE375P	375	413	192	122	16.6	990	1.43	4.40	0.44	2 x M 10	
CROSSWISE CONNECTION	LBE400P	400	406	195	146	18.0	1110	1.52	4.70	0.41	2 x M 10
	LBE415P	415	406	195	146	18.0	1110	1.52	4.70	0.40	2 x M 10
	LBE460P	460	406	195	159	19.8	1220	1.68	5.20	0.36	2 x M 10
	LBE500P	500	406	195	171	21.8	1320	1.81	5.60	0.33	2 x M 10
	LBE510P	510	406	195	171	21.8	1320	1.81	5.60	0.32	2 x M 10
	LBE550P	550	410	195	183	23.4	1430	1.94	6.00	0.30	2 x M 10
	LBE600P	600	410	195	206	26.1	1610	2.20	6.80	0.28	3 x M 10
	LBE650P	650	410	195	219	27.6	1720	2.37	7.30	0.25	3 x M 10
	LBE700P	700	410	195	232	29.4	1830	2.49	7.70	0.24	3 x M 10
	LBE750P	750	410	195	244	31.4	1930	2.62	8.10	0.22	3 x M 10
	LBE800P	800	410	195	256	33.4	2040	2.75	8.50	0.21	3 x M 10
	LBE830P	830	410	195	268	35.0	2140	2.88	8.90	0.20	3 x M 10
	LBE890P	890	410	195	292	37.2	2330	3.18	9.80	0.19	4 x M 10
	LBE925P	925	410	195	305	39.0	2440	3.34	10.3	0.18	4 x M 10
	LBE980P	980	410	195	317	41.0	2550	3.47	10.7	0.17	4 x M 10
	LBE1000P	1000	410	195	329	43.0	2650	3.60	11.1	0.17	4 x M 10
	LBE1020P	1020	410	195	329	43.0	2650	3.60	11.1	0.16	4 x M 10
	LBE1070P	1070	410	195	341	45.0	2750	3.73	11.5	0.15	4 x M 10
	LBE1100P	1100	410	195	353	46.6	2860	3.86	11.9	0.15	4 x M 10
	LBE1150P	1150	410	195	378	48.6	3050	4.18	12.9	0.14	5 x M 10
	LBE1200P	1200	410	195	390	50.6	3160	4.31	13.3	0.14	5 x M 10
	LBE1250P	1250	410	195	402	52.4	3260	4.41	13.6	0.13	5 x M 10
	LBE1300P	1300	410	195	413	54.8	3360	4.54	14.0	0.13	5 x M 10
	LBE1350P	1350	410	195	426	56.3	3470	4.67	14.4	0.12	5 x M 10
LBE1400P	1400	410	195	438	58.2	3570	4.80	14.8	0.12	5 x M 10	
LBE1450P	1450	410	195	463	59.9	3770	5.12	15.8	0.11	6 x M 10	
LBE1500P	1500	410	195	487	64.2	3980	5.38	16.6	0.11	6 x M 10	
LBE1550P	1550	410	195	499	65.9	4080	5.51	17.0	0.11	6 x M 10	
LBE1600P	1600	410	195	511	68.1	4190	5.64	17.4	0.10	6 x M 10	
LBE1660P	1660	410	195	523	69.8	4290	5.77	17.8	0.10	6 x M 10	
LBE1690P	1690	410	195	523	69.8	4290	5.77	17.8	0.10	6 x M 10	

* Height including the IP2X terminal cover

